



PANDEMIC INFLUENZA U • P • D • A • T • E



Public Health Prepares

April 2006

Fast Facts

Our assumptions for a pandemic today are that:

- Infected people will shed the virus and each infected person on average would infect two other people.
- Absenteeism from work and school in such a community will be between 15% and 35% because of exposed or sick people, but also because people will need to take care of others.
- Therefore, communities must prepare locally to respond to a pandemic. It is important for communities to work together in their planning.
<http://www.pandemic.gov/flu>

If You Are Asked . . .

"You work for CDC. So what is CDC doing to prepare for a possible H5N1 influenza pandemic?"

CDC is doing a number of things. But remember, there is no influenza pandemic now, and we can't predict the timing of a pandemic. However, CDC and other health professionals are carefully monitoring developments related to avian influenza H5N1. And, here are some ways CDC is playing a central role in pandemic preparedness:

- We have a new state-of-the-art emergency operations center and 18 quarantine stations with 2 more planned for 2007.
- CDC is working with the Council of State and Territorial Epidemiologists and others to help states with their pandemic planning efforts.
- CDC is working with other agencies, such as the Department of Defense and the Veterans Administration, on antiviral strategic stockpile issues.
- CDC is involved in performing laboratory testing of H5N1 viruses.

For more information on what CDC is doing for a possible influenza pandemic, go to <http://www.cdc.gov/flu/pandemic/preparedness.htm>.

Public Health Prepares . . .

The Strategic National Stockpile (SNS) is a key element in the federal plans to respond to a pandemic influenza. HHS and CDC were charged by Congress in 1999 to establish the SNS. The mission was to provide a re-supply of large quantities of essential medical material to states and communities during an emergency in the United States or its territories within twelve hours of the federal decision to deploy. The Strategic National Stockpile will have a total of 26 million treatment courses of

antiviral drugs for distribution to the states when an influenza pandemic is deemed to be imminent.

As there is no current FDA approved vaccine for the H5N1 virus, HHS is in the process of procuring “pre-pandemic vaccine,” which is vaccine developed and based on current strains of H5N1 (prior to a pandemic). These vaccines will be part of the SNS which would be deployed in the earliest waves of response to a pandemic.

For more information on the Strategic National Stockpile go to <http://www.bt.cdc.gov/stockpile/>.

Update on H5N1: Global Activity Humans and Birds

Humans: During recent outbreaks since 2004, there have been 194 confirmed cases in humans and 109 deaths. They occurred in the following nations: Vietnam 93 cases and 42 deaths; Thailand 22 cases and 14 deaths; Indonesia 31 cases and 23 deaths; China 16 cases and 11 deaths; Cambodia 6 cases and 6 deaths; Turkey 12 cases and 4 deaths; Iraq 2 cases and 2 deaths; Azerbaijan 8 cases and 5 deaths; Egypt 4 cases and 2 deaths.

Birds: Since December 2003, avian influenza A (H5N1) infections in poultry or wild birds have been reported in the following countries: Nigeria, Niger, Cameroon, Cambodia, China,, Hong Kong, Indonesia, Laos, Malaysia, Mongolia, Myanmar, Thailand, Vietnam, Albania, Austria, Afghanistan, Azerbaijan, Bosnia, Bulgaria, Croatia, Czech Republic, France, Germany, Denmark, Greece, Hungary, Italy, Poland, Romania, Russia, Serbia, Slovakia, Slovenia, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Egypt, Iraq , Iran, Israel, Jordan, Georgia, India, Kazakhstan, and Pakistan.

CDC Recommends . . .

Planning for pandemic influenza is critical. HHS and CDC have developed a checklist to help public and private organizations that provide home health care services assess and improve their preparedness

for responding to pandemic influenza. Home health agencies will likely be called upon to provide care for patients who do not require hospitalization for pandemic influenza, or for whom hospitalization is not an option because hospitals have reached their capacity to admit patients. These agencies may become overburdened very quickly and shortages of personnel and supplies for providing home health care may occur.

The checklist is comprehensive but not complete; each home care agency will have unique and unanticipated issues that will need to be addressed as part of a pandemic planning exercise. This checklist identifies key areas for pandemic influenza planning. Home health care organizations can use this tool to identify the strengths and weaknesses of current planning efforts. Links to websites with information are provided throughout the document. However, actively seeking information that is available locally or at the state level will be necessary to complete the development of the plan.

An example of issues addressed in the checklist include the following:

- ☐ Plans have been developed to manage patient care during the height of a pandemic to accommodate the increased number of patients who will need home care services.
- ☐ The scope of services that the agency will provide and those that will be denied or referred to other providers has been clearly defined.
- ☐ The role and responsibility of the agency regarding distribution of infection control supplies (e.g., masks, hand hygiene materials), food, medications, and other necessities in the home to patients and their families has been discussed with a local or regional pandemic influenza planning group.
- ☐ Plans include decision tools for determining which patients can have altered service schedules based on their health conditions, needs, and available resources.
- ☐ Local plans and criteria for the disposition of patients have been discussed with area hospitals and other home care agencies. (Hospitals may discharge patients to home and home health care

agencies early to free-up bed space for critically ill patients.)

- ❑ The plan considers how social service agencies (e.g., Red Cross, Salvation Army) will help meet the needs of families in the community (e.g., by providing child- or elder-care meals, shopping services) in homes where there are patients with pandemic influenza, particularly where the primary adult support person living in the home is ill.
- ❑ The plan considers how the agency will maintain a database of clients who require electrically-dependent technology-driven care (e.g., ventilators, breathing treatments, suction, pumps, turning devices), oxygen, special nutrition requirements, dialysis, etc.

Further information can be found at www.pandemicflu.gov.

Where to find out more . . .

Pandemic Preparedness Crisis & Emergency-Risk Communication training at CDC, May 16: The CDC Corporate University's new School of Preparedness and Emergency Response is offering the one-day course. It will explore the psychology of a public health emergency and the types of risk communication messages the public will need from their public health professionals during a pandemic. For more information, visit: <http://intranet.cdc.gov/od/cdceu/cdceuprep.htm#pandemic>

Pass this on . . .

H5N1 infections in cats – public health implications

The natural reservoir of influenza viruses is generally considered to be wild waterbirds. In this animal group, many types of influenza viruses circulate without seeming to cause much disease, and are therefore known as ‘low pathogenic’ avian influenza viruses. As well as waterbirds, a number of other animals (including humans) are occasionally infected with influenza viruses (Table).

However, a distinction needs to be made between species which can occasionally be infected by a particular influenza but who rarely transmit on – so called ‘dead end hosts’ and those species where it seems that the viruses are better adapted and are transmitted – ‘propagating hosts’ (Table).

Species	Some influenza types that infect
Cats	Type A/H5N1
Dogs	Type A/H3N8
Horses	Type A/H7N7 and H3N8
Humans (pandemic and seasonal influenza)	Type A, H3N2 and H1N1 also Types B and C
Marine Mammals (seals)	Type A/H7N7
Mustelids (including ferrets, mink and wild mustelids)	H3N2, H10N4 and H5N1
Pigs (swine fever)	Type A/H1N1, H1N2, H3N2

Cats are among the species which can, and have been, infected with influenza type H5N1. The first time that this happened, and was reported, was in December 2003 when a few large cats (leopards and tigers) died in a zoo in Thailand after being fed with infected poultry [1]. The second natural event was a much larger H5N1 outbreak in zoo tigers, also in Thailand, which had been fed chicken carcasses. Over 140 tigers died, or were euthanized, and there was convincing evidence of tiger to tiger transmission [1,2].

Experimentally, it has been shown that domestic cats can be infected with H5N1 through eating infected material and that these infected cats can transmit influenza to other cats. These experimentally infected cats, though limited in number, all became seriously ill when infected and did not seem to shed the virus until they had symptoms. To date the only domestic cats that have been conclusively shown to be infected have been those found ill or dead in the intense epizootic of H5N1 in wild birds on Rügen island in Germany in February 2006. There have been anecdotal reports of increased mortality in cats during H5N1

PANDEMIC INFLUENZA UPDATE

outbreaks in other countries (China, Iraq and Indonesia) but these have not been confirmed by laboratory tests.

Unconfirmed reports of infections and deaths from H5N1 in cats elsewhere should always be interpreted cautiously. A recent preliminary report of infected cats in Austria was eventually not confirmed. Reports of positive serology for H5N1 infection in non-bird species should be treated with particular caution, especially if these involve healthy animals and there has been no actual evidence of H5N1 virus (PCR or viral isolation). Serology for H5N1 may be helpful but it needs to be undertaken in laboratories used to handling H5N1 serology and able to exclude the cross reactions that can occur with H5N1.

The risk to humans from an H5N1 infected cat is hard to quantify. Cats naturally hunt wild birds, will choose sick birds and have close contact with humans as companion animals. Given that one cat can infect another, the risk to humans cannot be zero. Though as H5N1 remains poorly adapted to humans, the cat's infection will not cross over

easily. The present evidence is that cats with infectious H5N1 are quite ill, so the risk of acquiring H5N1 from a well cat may be negligible. Also, risk will be minimal in areas where there is no H5N1. While it could be argued that owners should be cautious around cats with respiratory infections, cats (like humans) catch many of these. For example, there are common infections confusingly called 'cat 'flu', which are not caused by an influenza virus at all but are due to either a cat calicivirus or herpes virus. Humans are actually at considerably greater risk from other zoonoses in cats such as toxocara, toxoplasmosis and ringworm, and basic hygiene measures for handling companion animals are important to protect against these.

<http://www.eurosurveillance.org/ew/2006/060413.asp#4>

Pandemic Influenza Update: Reader's Feedback

NOTE: *The Pandemic Influenza Update is published once a month. It is prepared by CDC's Office of Enterprise Communication. Information in this newsletter is time sensitive and evolving. Readers are welcome to comment by email to PANUPDATE@CDC.GOV*

United Nation Food and Agriculture Organization's Recommended *Actions in Areas Where H5N1 HPAI has been Diagnosed or is Suspected in Poultry or Wild Birds:*

- Be especially vigilant for any dead or sick cats and report such findings
- Make sure contact between cats and wild birds or poultry (or their faeces) is avoided and/or keep cats inside
- If cats bring a sick or dead bird inside the house, put on plastic gloves and dispose of the bird in plastic bags for collection by local veterinary animal handlers
- Keep stray cats outside the house and avoid contact with them
- If cats show breathing problems or nasal discharge, a veterinarian should be consulted
- Do not touch or handle any sick-looking or dead cat (or other animal) and report to the authorities
- Wash hands with water and soap regularly and especially after handling animals and cleaning their litter boxes or coming in contact with faeces or saliva
- Dogs can only be taken outside the premises if kept restraint
- Do not feed any water birds
- Disinfect (e.g. with bleach 2-3 %) cages or other hardware with which sick animals have been transported or been in contact with.
- Wash animal blankets with soap or any other commercial detergent
- Those living on farms should also be aware of the risk that semi-domestic cats (feral domesticated and farm cats) could shed the virus into poultry feed or housing, leading to exposure of poultry.